

**1 WHAT IS CLAIMED IS:**

2     1.     A method in a computer system for efficiently comparing two trinary logic  
3     representations, comprising:

4           a)       creating a first data structure (referred herein as a VALUE data structure)  
5                   representative of a first set of properties;

6           b)       creating a second data structure (referred herein as a KNOWN data  
7                    structure) representative of whether said first set of properties is  
8                    known;

9           c)       creating a third data structure (referred herein as a TARGET data  
10                   structure) representative of a target set of properties;

11           d)       creating a fourth data structure (referred herein as a WANT data structure)  
12                   representative of whether said target set of properties is wanted; and

13           e)       comparing said first, second, third, and fourth data structures using bit-  
14                   wise binary operations to determine whether said first set of known  
15                   properties are wanted as a target set of properties.

2. The method of claim 1 wherein said bit-wise binary operation are performed according to the Boolean equation: (not WANT) or (KNOWN and ((TARGET xor VALUE))).

3. The method of claim 1 wherein said bit-wise binary operation are performed according to the Boolean equation: (not WANT) or (KNOWN and ((TARGET and VALUE) or ((not TARGET) and (not (VALUE)))).

22        4.        The method of claim 1 wherein said first, second, third, and fourth data structures  
23        are 16-bit computer words.

24 5. The method of claim 1 wherein said first, second, third, and fourth data structures  
25 are 32-bit computer words.

26        6.        The method of claim 1 wherein said first, second, third, and forth data structures  
27        comprise multiple computer words.

28 7. The method of claim 1 wherein at least one of said first set of properties and at  
29 least one of said target set of properties are represented as a single bit.

30 8. The method of claim 1 wherein at least one of said first set of properties and at  
31 least one of said target set of properties are represented as multiple bits.

1 9. A method in a computer system for selecting an audio element to transmit to a  
2 remote listener, comprising:

- 3 a) creating a first data structure (referred herein as a VALUE data structure)  
4 representative of a first set of demographic properties related to a  
5 remote listener;
- 6 b) creating a second data structure (referred herein as a KNOWN data  
7 structure) representative of whether said first set of demographic  
8 properties related to the remote listener is known;
- 9 c) creating a third data structure (referred herein as a TARGET data  
10 structure) representative of a target set of demographic properties  
11 relating to an audio element;
- 12 d) creating a fourth data structure (referred herein as a WANT data structure)  
13 representative of whether said target set of demographic properties is  
14 wanted to be targeted; and
- 15 e) comparing said first, second, third, and fourth data structures using bit-  
16 wise binary operations to determine whether the audio element should  
17 be transmitted to the remote listener.

18 10. The method of claim 9 wherein said bit-wise binary operation are performed  
19 according to the Boolean equation: (not WANT) or (KNOWN and ((TARGET xor  
20 VALUE))).

21 11. The method of claim 9 wherein said bit-wise binary operation are performed  
22 according to the Boolean equation: (not WANT) or (KNOWN and ((TARGET and  
23 VALUE) or ((not TARGET) and (not (VALUE))).

24 12. The method of claim 9 wherein said first, second, third, and fourth data structures  
25 are computer words.

26 13. The method of claim 9 wherein said first, second, third, and fourth data structures  
27 are 32-bit computer words.

28 14. The method of claim 9 wherein said first, second, third, and forth data structures  
29 comprise multiple computer words.

30 15. The method of claim 9 wherein at least one of said first set of properties and at  
31 least one of said target set of properties are represented as a single bit.

